DRAFT

ENDANGERED SPECIES RECOVERY COMMITTEE

17 DECEMBER 2015 MEETING MINUTES

Meeting Location:
State Capitol Building, Room 319; Honolulu, HI 96813

MEMBERS: Dr. Scott Fretz (DLNR), Dr. Jim Jacobi (USGS), Dr. Gordon Tribble (USGS), David Tessler (USFWS), Dr. Samuel M. ʻOhukaniʻōhiʻa Gon III (At-Large), Kimberly Burnett (UH-Hilo; arrived late at approximately 10:30)

ABSENT: Dr. John Harrison (At-Large), Dr. Eric Vander Werf (At-Large)

STAFF: DOFAW: Fern Duval, Afsheen Siddiqi, Glenn Metzler, John Vetter, Kate Cullison; Maggie Sporck-Koehler and Greg Mansker (for Item 6 only)
USFWS: Jodi Charrier, Diane Sether, Dawn Bruns

COUNSEL: None.

OTHERS: Mitchell Craig (SunEdison), Greg Spencer (HT Harvey), Paul Conry (HT Harvey), Tom Snetsinger (TetraTech), Alicia Oller (TetraTech), Mike Cutbirth (Na Pua Makani Partners), Corinna Pinzari (HCSU), James Breeden (SWCA), Joe Herzog (Public observer, veterinarian), Lei Leong (Pono Pacific), Tracy Gotthardt (KMWP)

ITEM 1. **Call to order.** Introductions of Committee members, staff, and others.

Chair Fretz called the meeting to order at 9:00am. The Chair recommended reviewing Item 6 during or around lunch, before Item 5.

ITEM 2. **Approval of Meeting Minutes:** Minutes from September 8, 2015 Endangered Species Recovery Committee (ESRC) Meeting.

Minutes were approved with no comments and unanimous committee vote.

ITEM 3. **Request for approval of the Hawaiian Hoary Bat White Paper Guidance Document**: DOFAW staff has revised the document based on discussions from the October 2015 ESRC meeting

Fretz introduced Item 3, DOFAW staff seeking approval of the bat guidance paper. Siddiqi stated that all revisions discussed at the last meeting were incorporated in the document. In addition, two additional comments were received and will be incorporated into the final version. First comment was revision of Table 2 description should be changed to state that costs reflect only habitat conservation plans with habitat restoration as bat mitigation. Second comment came from the U.S. Fish and

Wildlife Service (USFWS) requesting that footnote on page 22 should be changed to "Note that the USFWS considers take monitoring to be a non-discretionary piece of the project description, and Federal regulations do not allow for the mitigation credit for this research."

MOTION:
Tribble made a motion to approve of the Hawaiian Hoary Bat White Paper Guidance Document.
APPROVED: Fretz seconded with the understanding that the implementation plan for the guidance document be brought to the committee for approval later and there was unanimous approval by all 4 members present.

The following discussion is on an additional implementing document that was submitted to the committee for consideration. The implementing document is being considered separate from the white paper, so that the approval of the white paper is not an approval of the implementation document.

Jacobi asked how the implementation plan will fit into the guidance document. Gon states that the bat guidance paper would inform the details in the implementation plan. Both the guidance paper and implementation should be dynamic documents. Tessler agrees and states that the implementation plan will change more often to reflect updated priorities.

There is general agreement that the implementation plan in the meeting package needs revision. Fretz said that staff will work on it and Jacobi is willing to participate.

Jacobi said he doesn't like the priority one, two, three idea, and thinks that's too linear and they should be co-occurring - all are high priority. He suggests merging the implementation plan with a recovery strategy to answer the question of what we need to know to recover the Hawaiian hoary bat. Tessler feels that much of that information is already integrated into the white paper. Bruns of FWS says that the DOFAW meetings are the extent of the discussions by the bat working group. There's not really been other discussions, staff hasn't had time.

Jacobi wants to make sure the implementation plan includes not-mitigation actions that are co-ocurring, such as efforts by other entities. Fretz agrees, saying this plan is not just what we need for mitigation credit, but rather everything that we need to know.

Craig suggests creating a document that could be used as an RFP, so a consultant can select a piece to work on, and know what they are expected to find out. Jacobi wants to make sure that he knows how the pieces fit in. Fretz suggests creating a subcommittee of staffers to hammer out the draft. Tessler wants to add a realistic timeline, since staff is really busy. Bruns suggests Jacobi work at it since staff has

already worked a lot. Fretz suggests that 2 committee members work with staff. Tribble suggests Jacobi and Frank Bonacorso. Fretz volunteers to participate.

Vetter points out that the implementation plan was envisioned as the implementation of the white paper, which was designed for mitigation. Instead now we are adding recovery, which was not incorporated into the white paper, and makes it a much different scope. Tessler agrees, as initial started, the plan was the implementation of the white paper. Fretz wanted to get the subcommittee together for half a day, see where it gets, and bring the draft product to the ESRC. Tessler stated he did not want this to delay the project proponents moving forward. Fretz indicated staff will send out a poll for date and indicated they don't need sunshine law for this subgroup, because it involves staff, not a meeting of members.
Close of implementation plan discussion.

ITEM 4. **Request for ESRC comments on SunEdisons' proposals for Hawaiian hoary bat mitigation** associated with higher level of take at Kaheawa Pastures Wind Energy Generation Facility, Maui and Tier 2 and Tier 3 mitigation associated with the Kawailoa Wind Power Facility, O'ahu.

Siddiqi introduces. KWPI is entering into higher levels of take for an additional 30 bats and plans to provide mitigation funds in the amount of $1.5M and Kawailoa is proposing their Tier 2 and Tier 3 mitigation for bats take the form of $2M for research. In the near future, Kawailoa will be requesting an increase in take authorization through a major amendment. Mitigation funds are proposed for research using the $50,000 per bat recommendation.

Mitch Craig presented a short powerpoint on 4 proposed projects. KWPI baseline authorized take of 20 bats equated to mitigation totaling $1000 per bat 10 years ago. SunEdison proposes to put all 1.5M of mitigation funds for the higher level of take towards research and indicated USFWS had already agreed to this. He indicated SunEdison prefers flexibility to assign research projects/dollars to any particular site. The other option not preferred is to assign each research project to a certain HCP.

Jacobi asked if in a sense the ESRC is serving as a review group. He explained ESRC had requested this. Fretz asked how the selection of these projects occurred. Staff indicated they were developing a process to do it so deferred to staff report back on the process. Fretz indicated that if SunEdison only got 4 proposals then the staff probably was not involved very much. Craig answered that there were 3 other proposals that had to do with occupancy and distribution besides those presented for a total of 7. The 3 not presented are being considered differently as the most recent Power Analysis study being reviewed today would inform if and how occupancy studies should proceed.. Craig indicated the agencies had gotten together to look at what types of studies should be conducted.

The power analysis study demonstrated that trying to look at population trends with some statistical confidence will require a lot of money and that logistics are difficult and would take much time. This indicates we may want to look at smaller areas.

Fretz asks about request for proposals (RFPs) put out for this research. Craig stated that some were not meant to be competitive proposals and some were. They were not public RFPs but targeted to people with bat experience that showed an interest.

SunEdison was originally thinking of funding the occupancy studies for trends but the power analysis and other analysis showed it would be very expensive and require much time for trends. Tessler said occupancy is not really a way to detect changes in population but is a way of detecting changes in distribution. Craig said there is no other way to determine changes in population. USGS did a 5 year study on Big Island and found the population there was stable or increasing. Fretz said it was likely that the confidence interval was probably wide.

Two of the projects are radiotelemetry tracking projects. Others are a diet study and a restoration site analysis.

For research that requires handling bats such as radiotelemetry Charrier of FWS explained that the permitting process for handling hoary bats is scrutinized heavily (by the Portland office) and understaffed so it can take significant time. Fretz stated that getting a permit should not get in the way of getting this research done.

Craig asks if he can get a sense of approval or not for the projects and then allow them to distribute the funds to the projects as they need.

Fretz asks if the staff has provided comments on each of the proposals. He said it helps if the applicant works with the staff first to work out details before coming to the committee.

Charrier stated the State and FWS have a difference of opinion – FWS is supportive of projects proposed for baseline information; State prefers waiting until there is a better sense of how they fit into the research requirements.

There was a discussion of the Power Analysis that was conducted. Jacobi indicated this study was a key element. Craig said prior to this West study, there had been no analysis of the amount of sampling it would take to complete an occupancy and trend study. Tribble said that the USGS study did not detect a downward trend in the previous study on the Big Island. Craig stated that sampling at Ukoa pond showed that it is hard to provide enough detectors for meaningful results. He said the power analysis showed that to detect a 40% change over 5 years you need a 150 detector sample size. Craig said a sample is 5 consecutive days for 1 detector.

Craig said for small areas it’s likely going to take more than 9 detectors to show a change. Fretz said 9 detectors did show some change. Jacobi said it comes down to

determining how effective occupancy is to determine the mitigation response. It is a blunt tool.

Fretz said some monitoring needs to be done but not necessarily acoustic monitoring. Craig said it is difficult to determine that what you have done is making a difference. Jacobi sees value in occupancy studies but it may not get at specific mitigation issues.

Charrier stated that research informs management decisions and is frustrated that mitigation is more the emphasis.

Tribble said that if you chose areas that were likely to be occupied it would help. It would give you local information. Tessler said that this may not tell you if the bats have just moved to another site. Craig said that if you want to study a whole island it is going to take 100+ detectors.

Craig discussed the USGS 2 yr Telemetry study proposal for Big Island. It is intended to determine home range, foraging habitat, roost selection and behavior and will utilize mobile and stationary antennae. Catch effort is not in the proposal and needs to be added. Previous research completed was over 3 weeks catching bats and tracking them. A study was done on the Big Island at a mac nut farm to show home range. Jacobi said these studies get you more information on limiting factors. This new study will collect more detailed information than previous studies.

Craig discussed the HT Harvey Telemetry proposal. Work was proposed on Kauaʻi because the structure for the study is already there. Maui was also a site, west side of Haleakalā. These sites are known to have higher levels of bats which is needed for these studies. Other sites with wind projects are more difficult because they may not be able to catch as many bats.

Jacobi was supportive of these types of studies that are not necessarily in connection with specific wind sites. These studies will help to determine how to manage bats. He is supportive of the proposed telemetry studies. Occupancy information is very important and may help to target future studies but trends may not be able to be detected. Craig states it will also help where to do mitigation. He also said that to compare results statistically (e.g. a change), you still need the high sample size, but you can get information without statistical tests.

Vetter stated that the telemetry towers on Kauaʻi have been abandoned and cannot be used and accessing the Alakai on Kauaʻi is difficult. Fretz sees value in telemetry but needs more information on HT Harvey study. Craig responded that this is not an issue because the proposal has an option for not using existing towers.

Fretz stated he did not think that a short proposal such as received for review is sufficient to determine award of a project of the dollar amount being considered.

Charrier stated that FWS is ready to provide more comments on studies and suggestions but wants to know if it will go forward. She asks if telemetry studies wherever they are done should be done in the same type of habitat as the island/location of wind projects to facilitate comparison.

Consensus of the ESRC: They are supportive of telemetry studies. More detail is needed on proposals and should be developed and come back to the ESRC at a future meeting for review.

In a more general discussion of research Tessler said each island is different (e.g. Big Island very different from other islands) and results of occupancy studies will provide information for other studies and interpretation. Juxtaposition of habitats is very important for bats and substituting one island or habitat for another island. Craig stresses that studies need to be done where they can catch bats. Jacobi thinks studies on any island has value for other islands and for bat ecology which is important. Tessler questions whether results from Big Island can be applied on other islands due to great differences in habitats and scale. Gon says at this stage it may be more important to go where we know bats can be caught. Tribble said they do have existing towers on Big Island and that was one reason to propose that island.

Consensus of the ESRC: It is important to do the studies where there are enough bats that we know enough can be caught. On telemetry studies- they are looking for more developed proposals.

Craig briefly described the genetics diet study. They will DNA bar code insects and remains of bats. It will also allow determination of sex. Jacobi said they also should do analysis of fecal samples. On the USGS Genetic Study Jacobi indicated he is very supportive. This information is important for knowledge of bat ecology but not immediately useful to produce more bats.

Gon indicted he wanted to see genetic analysis of material from both light traps and fecal samples analyzed. Tessler says metadata is important to obtain. Where samples go should be tracked. Jacobi says reporting should be part of the downed wildlife protocol. Should be a way of tracking where things go from studies and downed animals. Genetic samples should be obtained from all carcasses.

Consensus of the ESRC: Would like diet information from fecal samples incorporated. They need more details for this proposal.

ITEM 5. Request for recommendation of approval, denial, or amendment: Na Pua Makani Wind Energy Project Habitat Conservation Plan (HCP) for the proposed windfarm located at Kahuku, O‘ahu.

Siddiqi introduces the project and item (applicant seeking HCP approval). State is concerned about delayed mitigation. Siddiqi states that public comments were

submitted to the applicant and they provided responses that are in the committee package. She summarized several of the changes from the public comment draft as follows: The height of the turbines was increased from 156 to 200 m and the level of nēnē take was reduced from 11 to 6.

The applicant has agreed to changes requested by the State including clarifying the use of the compliance monitoring budget and state use of funds, and a request of technical assistance with work for the proposed mitigation of fence construction at Hamakua marsh.

Siddiqi said the applicant indicates that they will spell out specifics of bat questions in the Management Plan for Poamoho, to be done after the HCP gets approved and finalize within a year of beginning construction.

Snetsinger and Oller gave an overview of the plan. In response to a question from Jacobi, Oller stated that they would take responsibility for identification and removal of any Chromolaena (a recent invasive plant on O‘ahu) found on the site. Bat take summary: tier 1, 34 bats, tier 2, 51 bats, based on Kahuku data. Tier one mitigation for bats: fund bat research and 8 years of restoration at Poamoho. Tier 2 will be bat research and an additional 4 years restoration at Poamoho.

Snetsinger discussed post-construction monitoring: a standardized search would occur in years 1-3,and then during years 8-9 and 15-16 years of operation. Monitoring will only occur during these years. Revisions to post construction monitoring in this version of the HCP added 2 years for the current total of 7 years of standard searches out of 20 years operations. Operational monitoring would occur in years 4-7, 10-14, 17-20 with a frequency of 2x/month turbine searches. No SEEF or CARE would occur during operational monitoring and take estimates would be derived from the standardized search years.

Fretz stated that if they have strong justification to assume no variability in bat take across years then they should provide the data. Duvall suggested they could look at what happens at individual turbines. FWS representatives stated that SEEF and CARE will vary by year.

Snetsinger said based on public comments to cultural and MBTA species, the HCP indicates that there could be impacts to both groups, and refers the readers to the EIS of the project. Fretz replied that there is no permitting mechanisms for take of those species, although it remains illegal, though it has never been enforced by law enforcement in Hawai‘i. Tessler said there was no permit system for MBTA takes but FWS is working on it. In the meantime takes are not being prosecuted. Fretz asks if the EIS offers any voluntary action to compensate for the take of those species, Oller says the EIS is still being revised, but nothing is planned.

Returning to the question of bat take Snetsinger questions having to monitor all the time. Jacobi says we are observing much higher bat take than expected, everywhere and is concerned that they are going to miss a trigger.

Fretz opens for questions to Snetsinger/Oller:

Craig asked for clarification on search interval. Snetsinger replied it was not longer than carcass persistence time. Tessler asks when would dogs be used. Snetsinger replied it was not as part of initial monitoring, but might occur later. Craig indicated that their first experience at Kahuku showed a 2 day carcass persistence time, and only after very intense predator control did they get carcass retention up to 3 ½ days.

Fretz raised the issue of dogs seen onsite, which would also effect CARE. Oller said every site is different, and they can't assume the same as Kahuku. They will determine after startup, then decide if predator control is needed or a shorter search interval. They intend to start the search interval at 1 week and will adjust as soon as the first CARE trial is done.

ESRC discussion:
Fretz opens with the issue of interim monitoring. Fretz's recommendation is that the draft HCP reflect standard monitoring in every year unless the committee approves a change (applicant would have to apply for a modification to the monitoring scheme). Cutbirth says he appreciates the comments, will confer with his consultants on what the impacts are.

On mitigation Jacobi said he would like to see more management at Poamoho, but it's difficult to make a case for the benefit to bats, but said we have acknowledged earlier today that we don't know how to manage bats yet, and that's why we are promoting research. He asks how to reconcile this. Jacobi asks that if it is good management and results in a benefit, can we detect it. Fretz said he wants to see monitoring to show effectiveness if we can detect anything of biological meaning. Fretz said the Poamoho plan is very short without details. Snetsinger indicated that mitigation monitoring has typically been to put out a few acoustic detectors and monitor that over time and they have a research budget that would go towards that type of monitoring, but they haven't specified it because they are still gathering information on methods and they are hoping for input from the agencies.

Gon asks where on O'ahu do we have the best baseline (if any) for where bats are. Charrier says there is some data that could be pulled together from the Ko'olau mountains area and the army is doing some monitoring in the Waianae mountains area. Pinzari said some bats have been detected at Kolekole Pass, at Ford Island, and one detection from a year of testing at Bellows. Duvall raises the point that, based on his observations on Maui, e.g. high bat numbers feeding in a pineapple field with souring beetles, diet may be a very important factor as to where bats are found.

Tessler stated just because we know so little about bats doesn't mean we shouldn't promote what we know to be good restoration of habitat, even if not measureable. Fretz asks for the reason such a tiny small dollar amount of $100K is being used for research and what is it being used for. Oller said that amount was meant to try to meet the new guidance that is promoting research, even though when they started this project the agencies all wanted restoration.

Fretz summarized, saying it seems like there is a consensus to do the Poamoho project and the $100k research will be used for a to-be-determined project; also that monitoring should be done. Jacobi wants more details on the monitoring, not just an assumption that it will be done.

Fretz mentions that he is not satisfied with the amount of disclosure and states that part of the HCP is to provide sufficient information to determine that they are meeting the requirements of the law. Some provision has to be made to provide the public assurance of what you intend to do. Oller stated they had a precendent, that Auwahi didn't have a plan, but instead said that a plan would be written and approved by staff as part of adaptive management. Bruns says as long as it's done before commercial operations, then it should be ok. Oller says she worked with Mary Ikagawa at the watershed partnership and that they need the money to be allocated to develop the plan.

Tessler brings up a potential conflict for the future for work with KMWP since his wife is the new KWMP manager.

Tribble asks if we can connect the restoration to a benefit in bat abundance. Bruns says no because the work is preventing it from getting worse. Fretz asks what magnitude of change is expected. The site is in pretty good shape right now, but is affected by pigs, so while the project would prevent it from getting worse, it may not be easy to measure a benefit.

Fretz wants to amend to say that the management plan needs to be approved not just by staff, but by the ESRC and Jacobi agrees. Fretz also wants them to provide for monitoring at the mitigation site to determine success. Snetsinger replied that the monitoring aspects are in the HCP. Oller said page 62 discusses the acoustic monitoring at Poamoho. Fretz and Gon want that outlined in the plan itself for Poamoho.

In terms of site monitoring at the turbines, Jacobi says the recommendation is for continued monitoring until/unless approved by the committee.

Fretz states that land acquisition is identified as potential mitigation in the HCP but with no information on criteria, species benefit, etc, and is to be approved by staff and that that is not enough information for the committee to approve. The applicant should either elaborate on the selection criteria (and have to come back to the committee) or simply strike it. Tessler said it should say subject to approval by

ESRC. Fretz wants criteria for the land selection, such as under threat of being lost, has suitable habitat, etc).

On waterbirds Fretz wants to see a concrete measure of success from fencing. Snetsinger says in terms of waterbirds, there is no baseline data, no monitoring has been going on. They know there have been observed fatalities, but no specific data on it.

For nēnē, Fretz stated the proposed is not sufficient. He said don't do mitigation on O'ahu if you have no idea if the project will result in a benefit. Gon said the target goal could be zero predation events on nēnē within the proposed fenced area, or for other birds, zero road fatalities in the area of the fence. The waterbird fence will reduce the waterbirds wandering into the parking area and getting hit. But without baseline data, you can't require a "reduction" in order to measure success.

Regarding the nēnē fence, with only 3 nēnē currently present on O'ahu, Fretz is willing to let the current proposal stand but would like to see the measures of success reflect the expected biological outcome of the mitigation project.

MOTION:
Fretz made a motion that the draft Na Pua Makani HCP be amended based on discussions from today and return to the ESRC for review and recommendation of approval.
APPROVED: Gon seconded the motion and the motion was unanimously approved by all 5 members present.

ITEM 6. Update by DOFAW staff on the implementation and mitigation status of the Habitat Conservation Plan for *Abutilon menziesii* at Kapolei for the Department of Transportation (Note: discussed prior to Item 5)

Maggie Sporck-Koehler presented an update on the project, showing a table of project monitoring and target goals. Short term criteria has been difficult to meet. Mansker says the 5 year target for seedlings that is one criteria isn't good, because it takes more than that to get seedlings from the plants. He explains that we have some, but not as many as hoped for in the HCP target. Recruitment is naturally lower in the first 5 years and the target is unrealistic. Jacobi suggest changing the criteria to something more attainable.

Sporck shows maps of sites on O'ahu, plus 3 failed or abandoned sites (Ka'ena, burned, Kaiwi flooded, Kealia failed to thrive). Tessler asked how the sites were chosen. Mansker says they were determined based on availability.

Sporck presented the status of the 2 wild sites. Diamond head has had 104 planted, currently 71 adults, 13 seedlings (recruitment has been very low, barely keeping up with senesence). Weed control continues to be an issue and long-term goals at this site have not been yet been reached.

Sporck continued with providing information on the second wild site Honouliuli. This site currently has 73 mature plants and is doing very well. Space is a limitation at this site. Outplanting has also been conducted at Pouhala marsh, but some plants have failed because if the tidal fluctuations and this site does not seem viable as a wild site. The State is working on securing one more site to establish the third wild population required in the HCP. A site at Kahuku, owned by the State, has been identified and has favorable conditions also with regards to climate change and precipitation. This site is planned for planting in early 2016 and we are waiting permission from the Department's Land Division.

There is discussion of the Conservation Reserve Area (CRA) at Kapolei. This site is stated in the HCP as 18 acres but a recent GIS analysis indicates the current fenced area is approximately 26 acres. The CRA site at Kapolei is the largest of the sites being managed under the HCP and has 35 plants currently. This site has high weed pressure and fire threat but is maintained as a contingency if success criteria are not met under this HCP. The HCP and ITL state that the CRA can be taken (developed) if certain short-term criteria are met at one wild site. Sporck explains that it could be interpreted that we have met short-term success criteria at this site but it is debatable since not all criteria were not met within the 5 year establishment period, which is a condition of success. The lack of clear criteria for take of the CRA is of concern, especially since the long-term criteria and overall success of the 3 wild sites are in question. Jacobi states that the original committee intent was that they must have 3 successful wild sites to fulfill the HCP. Currently the overall success criteria under the HCP are not likely to be met given the limitations and challenges at the mitigation sites, therefore Sporck proposes that the CRA be converted to one of the mitigation sites where success criteria could be achieved. Gon supports this proposal, that the CRA be a mitigation site or a site to preserve genetic diversity. Fretz suggests bringing to committee a specific request to keep the CRA.

There was also discussion of current ownership of the CRA land mitigation and agreements in place with landowners/managers of the wild site locations. Mansker says the Cooperative Agreement that authorizes the work on the Diamond Head site is missing and no signed copy has been found by the parties involved. There is also some ambiguity for other sites and Jacobi asks that we research the agreements for use of the wild sites.

ITEM 7. Announcements

The next meeting tentatively scheduled for the week of the 22nd of February but not Friday.